

the products of fission never resemble bud or larval polyps. The first seems best understood as a modified form of budding, the organs of the bud having come into intimate association with those of the parent polyp, so that separation of the two involves the division of the mouth, stomodæum, disk, and tentacular system (fissiparous gemmation).

f. Apparently true discal gemmation may take place in species which usually reproduce by columnar budding.

References.

1900. BERNARD, H. M. "On the Structure of *Porites*, with Preliminary Notes on the Soft Parts," Journ. Linn. Soc., Zool. vol. xxvii.
 1901. VERRILL, A. E. "Variations and Nomenclature of Bermudian, West Indian and Brazilian Reef-Corals, with Notes on various Indo-Pacific Corals," Trans. Conn. Acad. Science, vol. xi.
 1902. DUERDEN, J. E. "The Morphology of the Madreporaria.—II. Increase of Mesenteries in *Madrepora* beyond the Protocnemid Stage," Ann. & Mag. Nat. Hist., ser. 7, vol. x.
 1902^a. —. "The Morphology of the Madreporaria.—III. The Significance of Budding and Fission," Ann. & Mag. Nat. Hist., ser. 7, vol. x.

XVIII.—New and little-known American Coccidæ.

By T. D. A. COCKERELL.

CARDIOCOCCUS, gen. nov.

A Lecaniine Coccid allied to *Inglisia* &c.; legs and antennæ small or rudimentary; insect covered by a brittle waxy scale, with a dorsal pit or foramen.

Type *C. umbonatus*.

Cardiococcus umbonatus, sp. n.

♀.—About 2 millim. long, covered with white waxy secretion, elevated; low-conical as seen from the side, with numerous longitudinal striæ; nearly round as seen from above, with a large and deep central pit, the waxy secretion radiating from two contiguous rounded umbones, the whole shaped like the shell of the genus *Hemicardium*. No lateral fringe. The wax is rather opaque; the longitudinal (vertical) grooves are minutely cross-grooved, but I cannot see any definite air-cells. Denuded insect very shiny, dark brown, more or less vertically striated. Removed from the twig, the female leaves a dense white waxy pad. Legs and antennæ

present, but rudimentary; antennæ about $90\ \mu$ long, slender, obscurely jointed, with a very blunt bristly tip. Legs dark ferruginous, not very stout, anterior leg with tibia+tarsus about $100\ \mu$ long; hind leg with femur+trochanter $90\ \mu$; tibia+tarsus $120\ \mu$. Skin orange-ferruginous, not clearing upon boiling, obscurely tessellated, the tesserae about $15\ \mu$ diameter. Margin thickened, with a very few small simple bristles and quite numerous very small (about $7\ \mu$ long) spear-head shaped spines. Near the margin are many large gland-pits. There is a distinct median longitudinal groove and also a large oval dorsal opening corresponding to the pit seen in the waxy scale.

Larva (after boiling) pale lemon-yellow, about $375\ \mu$ long and 180 broad, tapering posteriorly, with the abdominal segments very well marked. Caudal bristles short, about $40\ \mu$ long. Legs long (about $165\ \mu$), digitules filiform, knobbed; anterior legs with tibia and tarsus about equal ($42\ \mu$); if anything, the tibia is the longer. Antennæ short (hardly $90\ \mu$), last joint with a very long bristle.

♂.—Scales on undersides of leaves, small and narrow, covered with dense waxy secretion, which forms two large dorsal tufts, one curling forwards, the other backwards. There are also irregular lateral nodules. Apical cap placed horizontally.

♂.—Pale yellow; wings iridescent.

Hab. Zapotlan, Jalisco, Mexico, on twigs of wild guava, July 6, 1902 (*C. H. T. Townsend*).

To this genus I must also refer two Australian species, *Cardiococcus fossilis* (*Inglisia fossilis*, Maskell, N. Z. Trans. xxix. p. 308) and *C. foraminifer* (*I. foraminifer*, Maskell, N. Z. Trans. xxv. p. 213). They have the dorsal pit and the conical spines so characteristic of *C. umbonatus*.

Ceroplastes mexicanus, Ckll.

Zapotlan, Mexico, July 7, on a composite near *Parthenium*; collected by Prof. Townsend.

Adults are $5\frac{1}{2}$ millim. long, 5 broad, 4 high. Immature examples are 3 millim. long, $2\frac{1}{4}$ broad, $1\frac{2}{5}$ high, dull white, the plates indicated by grooves, but not at all by colour; dorsal nucleus large, white, surrounded by dark purple-brown; lateral nuclei similarly coloured, but small, all very conspicuous; sometimes a chalky line runs from the lateral nuclei to the margin. Dorsum flat or sloping, not humped.

Ceroplastes cistudiformis, Ckll. & Towns., var.

Tonila, Jalisco, Mexico, on plant like *Parthenium*, Aug. 3 (Townsend).

Possibly a distinct species, but there is only one adult female. Closely allied is *C. variegatus*, Hempel. These species have a distinct dorsal hump.

Ceroplastes irregularis, Ckll.

El Paso, Texas, on *Atriplex*, May 26 (Townsend).

Ceroplastes roseatus, Towns. & Ckll., var. β .

♀.—Scales 8 millim. long, 7 broad, 5 high, dull yellowish white with a rosy tint, with two chalky spots on each lateral margin, but no lines; apex pointed as described by Dolby-Tyler; denuded female very dark, hemispherical, length (not counting horn) 5 millim., breadth $4\frac{1}{2}$, height $3\frac{1}{2}$. Caudal horn sharp, directed backwards and slightly upwards; back rounded, with only a small obtuse prominence, lateral nuclear prominences small.

Skin after boiling ferruginous, with very numerous round to suboval gland-orifices, about $10\ \mu$ diameter, and minutely reticulated patches as in allied species. Diameter of mouth-parts $150\ \mu$. Caudal horn conical, about $1450\ \mu$ long and 1000 broad at base, very dark coloured. Margin with short broad spines about $12\ \mu$ long. Legs with femur+trochanter $210\ \mu$ (width of femur 57), tibia 129, tarsus 87. Antennæ about $330\ \mu$ long, 7-jointed, with a long 4th joint; joint 2 short, 3 about $48\ \mu$, 4 about 105, 5 is 24-27, 6 is $2\frac{1}{4}$, and 7 is 40-48 μ .

Hab. Base of Volcan de Colima, Mexico, on stems of a tall herbaceous composite, Aug. 3, alt. about 7000 feet (Townsend).

Ceroplastes brachyurus, sp. n.

♀.—Scale convex, long. $2\frac{3}{4}$, lat. $2\frac{3}{4}$, alt. 2 millim.; irregular, with rounded prominences; wax dull white, stained with pink at the sides; two very conspicuous lines of chalk-white secretion on each side, close together. The lateral margins are swollen and the dorsal nucleus is more or less depressed. Denuded female, long. $2\frac{1}{2}$, lat. 2, alt. $1\frac{3}{4}$ millim., rounded, very convex, very shiny, ferruginous; caudal horn extremely small; a small but distinct dorsal knob. Skin after boiling brownish, semitransparent, mostly free from glands; antennæ about $180\ \mu$ long, 7-jointed, with a long 4th joint;

joints measuring in μ : (1) ring-like, (2) 21-27, (3) 33, (4) 45, (5) 18, (6) 16-18, (7) 24-27. Breadth of mouth-parts about 130 μ . Anterior legs with femur + trochanter 100 μ (width of femur 30), tibia 78, tarsus 66. The tarsus has a deep constriction near its middle, so that it looks as if 2-jointed. Claw-digitules about 21 μ long (twice as long as claw), stout, with bulbous base and large knob.

Larva about 375 μ long.

Hab. Zapotlan, Mexico, numerous on small branches of shrub with small pinnate leaves like *Rhus*, July 6 (*Townsend*).

This small species has not the wax divided into plates; it reminds one a good deal of *C. albolineatus*, but is much smaller, and the lateral chalky lines are narrower and closer together. The specimens are adult and have produced many young.

Ceroplastes marmoreus, sp. n.

♀.—Scale long. 6-6½, lat. 5-6½, alt. 4-5 millim., rounded, wax thick, not divided into plates, white, irregularly suffused and marbled with madder-red; sides bulging below, with two narrow bands of chalk-like secretion. Sometimes the wax of two or more individuals runs together. Denuded female about 3½ millim. long, not very convex, with a dorsal crest and six conspicuous pointed lateral projections; caudal horn very short, pyramidal.

Boiled in KHO the insects impart only a slight reddish stain to the liquid, but they nevertheless contain much madder-red colouring-matter. Skin after boiling yellowish ferruginous, semihyaline, without conspicuous glands. Diameter of mouth-parts 130-140 μ . Femur + trochanter 108-150 μ , tibia 70-123, tarsus 40-78; the smaller size refers to the anterior and the larger to the posterior legs. Claw-digitules with rather large knobs. Margin without spines. Anal plates about 90 μ long and 36 broad, shaped like the elytra of a beetle, and situated near the hind margin of a large subcircular or subtriangular orange-ferruginous chitinous plate (520 μ diam.), which exhibits many gland-orifices. Antennæ about 270 μ long, slender, 7-jointed, with a long 4th joint; joint 7 short and blunt, 1 long. Measurements of joints in μ : (1) 30-36, (2) 33-40, (3) 45, (4) 75, (5) 23, (6) 24, (7) 27.

Hab. Zapotlan, Mexico, on composite near *Parthenium*, July 7 (*Townsend & Boyd*); also on sage and *Catalpa* (*Townsend*).

C. marmoreus is easily recognized by its appearance; the

antennæ are almost exactly as in *C. cultus*, Hempel, but that species has thin wax. The specimens described had produced many young.

Ceroplastes purpurellus, sp. n.

♀.—Scale $2\frac{1}{4}$ millim. long, 2 broad, $1\frac{1}{2}$ high; dull purple-grey, plates indistinctly outlined by slightly darker lines; nuclei white, on large dark brown patches, the dorsal patch covering the whole of the rather obliquely truncate apex. From the lateral nuclei narrow bands of chalk-white secretion run to the margin. The scales vary much in height.

Denuded female rounded, caudal horn distinct and sharp, but very short; dorsum hardly cristate; wax fairly thick. Boiled in KHO the skin becomes yellowish hyaline, mostly without conspicuous glands. Anal plates $90\ \mu$ long and 42 broad, their outer sides rounded, not sharply angulate. About 17 glands in stigmatic area. Antennæ 7-jointed, first ring-like; joints measuring in μ : (1) 12-15, (2) 33, (3) 36-42, (4) 51, (5) 20-24, (6) 18-21, (7) 24. Anterior legs with femur + trochanter $135\ \mu$ long, tibia 90, tarsus 60, slightly constricted near the middle. Tarsal digitules filiform; claw-digitules with large knobs.

Hab. Tonila, Jalisco, Mexico, on a tree 12 feet high, Aug. 2 (*Townsend*). It occurs on the twigs, and on the same twigs are specimens of *Howardia biclavis* (Comstock).

C. purpurellus is allied to *C. brachyurus*, but is easily distinguished by its smaller size, more compact form, and different colour. The examples described had produced young.

Ceroplastes Townsendi, Ckll., var. *percrassus*, nov.

♀.—Waxy scale about 16 millim. long, 13 broad, 12 high; wax white, with a faint yellowish tint (not in the least pink), very watery, about $4\frac{1}{2}$ millim. thick; no division into plates; two chalky stripes on each side beneath, not at all visible on the outside. Denuded female very dark reddish brown, long. $6\frac{1}{2}$, lat. 5, alt. 5 millim., not counting the long caudal horn, which is 4 millim. long, black, and only very slightly inclined upwards. The sides have each three short pointed projections, of which the middle ones are the largest; the dorsum is low-pyramidal seen from the side, conical seen from the end, terminating in a distinct though rather blunt process, having the form of a short longitudinal keel. Boiled in KHO the insects colour the liquid dark madder-red. Legs very dark brown; femur + trochanter about $210\ \mu$ long, tibia

144, tarsus 95; tarsal digitules rather slender, about $60\ \mu$ long, with rather large knobs; claw-digitules extending beyond claw, rather slender, but with fairly large knobs. The claw-digitules are more or less swollen at the base, as in *C. psidii*. Dorsal skin strongly chitinous, ferruginous, with many mostly oval gland-orifices, about $15\text{--}30\ \mu$ in diameter. Here and there are large patches of tessellated (honeycomb-like) structure. Antennæ about $400\ \mu$ long, 6-jointed, with a very long 4th joint, which has a notch near its end. Measurements of joints in μ : (1) 36, (2) 63, (3) 60, (4) 126, (5) 32, (6) 72.

Larvæ (dried) bright ferruginous.

Hab. Zapotlan, Mexico, on small branches and twigs of *Ficus*, July 7 (*Townsend & Boyd*). The specimens were preyed upon by a Phycitid larva. Also collected at Irapuato, Mexico, on oleander and on a yellow-flowered tree with narrow leaves and a milky sap, July 4 (*Townsend*).

Immature specimens are similar to the original *C. Townsendi*, which was not observed to grow to anything like the size of the present insect. It is probable, however, that typical *Townsendi* grows to a larger size than has been observed.

Ceroplastes albolineatus, Ckll., var. *vulcanicus*, nov.

♀.—Waxy scale about 14 millim. long, $11\frac{1}{2}$ broad, 8 high; scales on small branches, often confluent; wax very thick and watery, pale yellowish pink, not divided into plates. A central white nucleus, and on each side a depression, below which is a bulging, upon which the bands of chalky-white secretion are more or less visible, often being very distinct. Within, the wax is decidedly pinkish. Denuded female dark red-brown, flattish, $5\frac{1}{2}$ millim. long, 4 broad, about 2 high, with a large narrow dorsal crest; the anterior and six lateral processes quite long and sharp-pointed; caudal horn short (about 1 millim.) and directed upwards at an angle of about 45° . Boiled in KHO the skin becomes hyaline, mottled with brown, with numerous scattered small glands, and here and there ill-defined patches of reticulation. The margin is thickened and presents two rows of small, broad, conical spines, hardly constricted basally. Antennæ 7-jointed: joint 1 ring-like, short; 2 very broad at base, with the apical third suddenly narrowed and bearing two bristles, one very long (about $90\ \mu$); 4 has the apical $10\ \mu$ suddenly constricted, and just before the constriction is a bristle. Measurement of joints in μ : (1) ?, (2) 66–70, (3) 68–70, (4) 105–120, (5) 21, (6) 21–24, (7) 36–40. Anterior leg with femur + trochanter

225 μ long, tibia 162, tarsus 68. Claw strongly curved; claw-digitules extending far beyond claw, rather stout, with dark brown knobs about 8 μ diameter; tarsal digitules filiform, about 58 μ long, with distinct knobs about 4 μ diameter.

Hab. Volcan de Colima, Mexico, on low bush below pines, altitude about 7000 feet, Aug. 3 (*Townsend*).

Very likely a distinct species.

Neolecanium plebeium, sp. n.

♀.—Scale long. 5½, lat. 4, alt. 2 millim., but variable; very dark brown, almost black, rough, with coarsely and closely pitted sides; dorsum smoother, shiny, with sometimes two obscurely indicated blunt longitudinal ridges. Surface of scale spotted with little patches of brownish-white secretion. Dorsal skin yellowish ferruginous (after boiling), with numerous small round gland-orifices of various sizes (diam. 6–15 μ). Anal plates ordinary, about 180 μ long and 9½ broad. Mouth-parts dark brown, about 180 μ diameter. Tracheæ large. Antennæ rudimentary. Margin apparently without spines.

Larva ordinary, about 450 μ long, with 6-jointed antennæ about 120 μ long.

♂.—Scale glassy, broader than usual, dorsal area narrower than lateral areas.

Hab. Colima, Mexico, on bark of "Higuerra" (*Ficus* sp.), July 13 (*Townsend*).

Allied to *N. herrera*, Ckll.

Neolecanium manzanillense, sp. n.

♀.—Scale long. 6, lat. 4½, alt. 4 millim., very convex, *Kermes*-like, black or almost so, shiny, roughened all over with small raised points; an irregular, often more or less star-shaped, pale yellowish-brown patch surrounds the anal plates. Sides slightly furrowed, but not plicate. Margin very thick. Younger scales (about 4½ millim. long) have the sides light brown, with deep furrows separating rounded ridges (about ten such ridges on each side), and the dorsal area convex, varying from light brown to light lemon-yellow. Skin (after boiling) of adult ferruginous, densely crowded with small tubular glands, all about the same size; ventral skin transparent. Spiracles large. Legs and antennæ rudimentary. Claw rather large, digitules well developed. Length of leg about 150 μ . Diameter of spiracular opening about 120 μ . Anal plates dark brown, small (about 165 μ long),

with two or three processes or teeth on the inner border anteriorly, apparently to lock them together; posteriorly the plates each terminate in a chitinous rod, which joins a large chitinous posterior to them. Anal ring oval, with eleven bristles of no great length, placed two at each end, and in the example studied four on one side and five on the other. Margin without spines.

Larva.—Mr. G. B. King has prepared the following description of the larva:—When dead and dry elongate-oval, brown; colourless when boiled in KHO. Length 460, breadth 272 μ . Antennæ 6-jointed, joints measuring in μ : (1) 20, (2) 20, (3) 44, (4) 20, (5) 16, (6) 44. Front leg with coxa 48, femur + trochanter 80, tibia 52, tarsus 44, claw 16 μ long. Marginal spines ordinary, 16 μ long. Anal lobes prominent, with one long bristle 240 μ long and two short sharp spines 16 μ long. Anal ring with six bristles 60 μ long.

Hab. Manzanillo, Mexico, on a leguminous shrub with mimosa-like leaves, infesting the small branches, July 18 (*Townsend*).

Neolecanium leucænae, Ckll.

Zapotlan, Mexico, on *Mimosa*, July 6 (*Townsend*).

The skin is very distinctly minutely reticulated in these examples. The rudimentary antennæ have six ill-defined joints, of which the second and third are largest, and about as broad as long.

Coccus [*Lecanium*] *minimus* (Newstead).

Colima, Mexico, on leaves of a fan-palm with a prickly nut, July 30 (*Townsend*).

New to America; doubtless introduced on plants. Females $2\frac{1}{2}$ millim. long are full of larvæ, which are 315 μ long. The skin is not properly tessellate, but wrinkled so as to appear so. The only character which does not agree with Newstead's description is the length of the tarsus; I find the first pair of legs with tibia 75, tarsus 51 μ long. Antennæ 7-jointed, joint 3 always longer than 4. Anal plates 132 μ long, 75 broad.

Lichtensia zapotlana, Ckll., var. *Townsendi*, nov.

♀.—Very dark brown, with glassy covering as in *zapotlana*; remains brown after boiling; ovisac long and narrow, 9 millim. long, 2 broad, more or less longitudinally grooved.

Second joint of antenna 33-42 μ , third 84-90, fourth 66, fifth 48. Claw-digitules considerably longer than claw, not nearly so broad as in *L. lutea*. Anal ring and plates about as in *L. mimosæ*.

Hab. Armeria, Colima, Mexico, on copal, July 19 (Townsend).

Ceroputo orthezioides, sp. n.

♀.—Body 2300 μ long, 1150 broad, covered entirely with white waxy secretion, which has a woolly appearance on the underside, but on the upper is densely felted, with short, broad, hardly separable, lateral lamellæ and a more or less distinct, sharp, mid-dorsal, longitudinal keel. The rostral loop projects forwards instead of backwards, and is seen extending from the deep anterior emargination. The body (not boiled) is perfectly colourless, except that each segment has on each side a large (about 95 μ diam.), convex, brown patch beset with short (about 15 μ long) spines. A pair of large air-vessels extend from near the basal tips of the middle coxæ to the ends of the anterior projections of the body, anterolaterad of the antennæ. Anal ring with six very long bristles, about 185 μ long. Labium 2-jointed, narrow, about 186 μ long and 96 broad. Legs and antennæ yellowish ferruginous; middle leg with femur+trochanter 414 μ long (width of femur about 98), tibia 375, tarsus 174, claw 54. Antennæ 8-jointed, joints measuring in μ : (1) 60, (2) 78, (3) 129, (4) 90, (5) 81, (6) 84, (7) 84, (8) 90-96. The last joint is very bristly. Claw with a large denticle on inner side.

Hab. Irapuato, Mexico, "on roots of dockweed," July 4 (Townsend).

A very peculiar species, with its deep anterior emargination. It looks like an *Orthezia*.

Ceroputo yuccæ (Coquillett), var. *ceanothi*, nov.

♀.—Length $3\frac{1}{4}$ -4 millim.; legs and antennæ dark sepia. Antennæ 9 jointed, joints measuring in μ : (1) 90-105, (2) 114-135, (3) 185-195, (4) 147-150, (5) 140-165, (6) 120-126, (7) 108-114, (8) 99-105, (9) 141-150.

Hab. Los Angeles County, California, on *Ceanothus oliganthus*, June 9, 1893 (Coquillett).

Differs from typical *yuccæ* in the considerably longer second and fourth joints of antennæ.

Phenacoccus gossypii, Twms. & Ckll.,
var. *psidiarum*, nov.

♀.—On leaves and bark; entirely covered by white cottony sacs about 4 millim. long, not at all waxy in appearance. They look like *Eriococcus*, except that the sacs are more cylindrical, with broadly rounded instead of tapering ends. Boiled in KHO does not stain liquid; eyes large and prominent; skin transparent, colourless, with many small round glands (4–5 μ diam.) and rather numerous bristles, some fully 105 μ long. Lateral bristle-patches small. Labium ordinary. Legs and antennæ very pale brownish; legs quite bristly. Claw with the usual denticle on inner side. Femur + trochanter 360 μ long, tibia 276, tarsus 95. Antennæ 9-jointed, joints measuring in μ : (1) 60, (2) 90, (3) 81–84, (4) 45–51, (5) 57–63, (6) 45–48, (7) 33, (8) 35, (9) 66.

Larva (after boiling) bright magenta, elongate, long. 405, lat. 180 μ . Legs, including femur, slender. The six bristles of anal ring thick and yellowish brown, about 24 μ long.

Hab. Zapotlan, Jalisco, Mexico, on wild guava, July 6 (Townsend).

Perhaps a distinct species. The *P. gossypii* (typical), collected by Townsend in 1898 (as reported in Biol. Centr.-Amer.), were preyed upon by Syrphid larvæ. The fly has been bred from these, and is kindly identified by Mr. D. W. Coquillett as *Baccha stenogaster*, Williston.

Solenophora zapotlana, sp. n.

♀.—On bark of twigs; broadly oval, about 2½ millim. long, with a slightly produced perforated caudal process, directed a little upwards. Colour a sort of pale ferruginous, but nearly covered with a greyish-white incrustation. Younger specimens are coarsely cancellated and have irregular, long, tongue-like, lateral processes. ♀ (adult) boiled in KHO stains the liquid yellowish brown; the insect contains a dull red pigment. ♀ a broadly pyriform bag; antennæ mere tubercles, consisting of a ring-like basal joint and an oblong terminal joint (25–30 μ long), tipped with bristles 18 μ long. Skin with very numerous large figure-of-8 glands, about 18 μ across, some smaller. Diameter of mouth-parts about 108 μ . Spiracles rather small. Caudal tubercles about 65 μ long, caudal bristles about 130. The caudal end of the insect is abruptly narrowed, with subparallel sides, for

about 270 μ . The base of this portion shows a broken ring of large circular brownish glands, about 12-18 μ diameter.

♂.—Scales cylindrical, pale brownish, rough, with an oblique terminal cap.

Hab. Zapotlan, Mexico, on sage, July 7 (*Townsend*).

By its small size it resembles *S. coloradensis*.

Tachardia rotundata, W. P. & T. D. A. Ckll., sp. n.

♀.—Scale hemispherical, about 6 millim. long, 5½ broad, 4 high; black, with a pink tint here and there, with a slight protuberance on each side, but not exhibiting the raised points of *T. gemmifera*; margin with short tongue-like processes. From the dorsal orifices spring white waxy threads. ♀ (boiled) is pink, broad-oval, about 5 millim. long (*T. fulvovariata*, *ingæ*, *rubra*, and *mexicana* are about 3 millim. or less); spine long and slender, abruptly broadened, but not greatly, at the base. Caudal process long and tapering, the apical half strongly chitinized. Dorsal excretory processes very peculiar, dark brown and strongly chitinized, very broad at base, inverted basin-shaped, with the apical portion separated by a constriction, its broad termination truncate and more or less trilobed. Young scales reddish, star-like in form, with six rays.

Larva long and narrow. ♂ scales as usual in the genus, but broadened in the region of the round cap, which is not much over a third the diameter of the scale.

Hab. El Platanas, Mexico, on "Zicna" and "Guasima," Aug. 4 (*Townsend*).

Something like *T. gemmifera*, but that species has the dorsal excretory processes subcylindrical, not contracted before the apex.

Tachardia nigra, Twms. & Ckll.

Tonila, Jalisco, Mexico, Aug. 3 (*Townsend*).

Conchaspis angræci, Ckll., var. *hibisci*, Ckll.

Platanas, Jalisco, Mexico, on "Rosa Maria," Aug. 4 (*Townsend*).

East Las Vegas, New Mexico, U.S.A.,
Nov. 23, 1902.